

FIG. 1

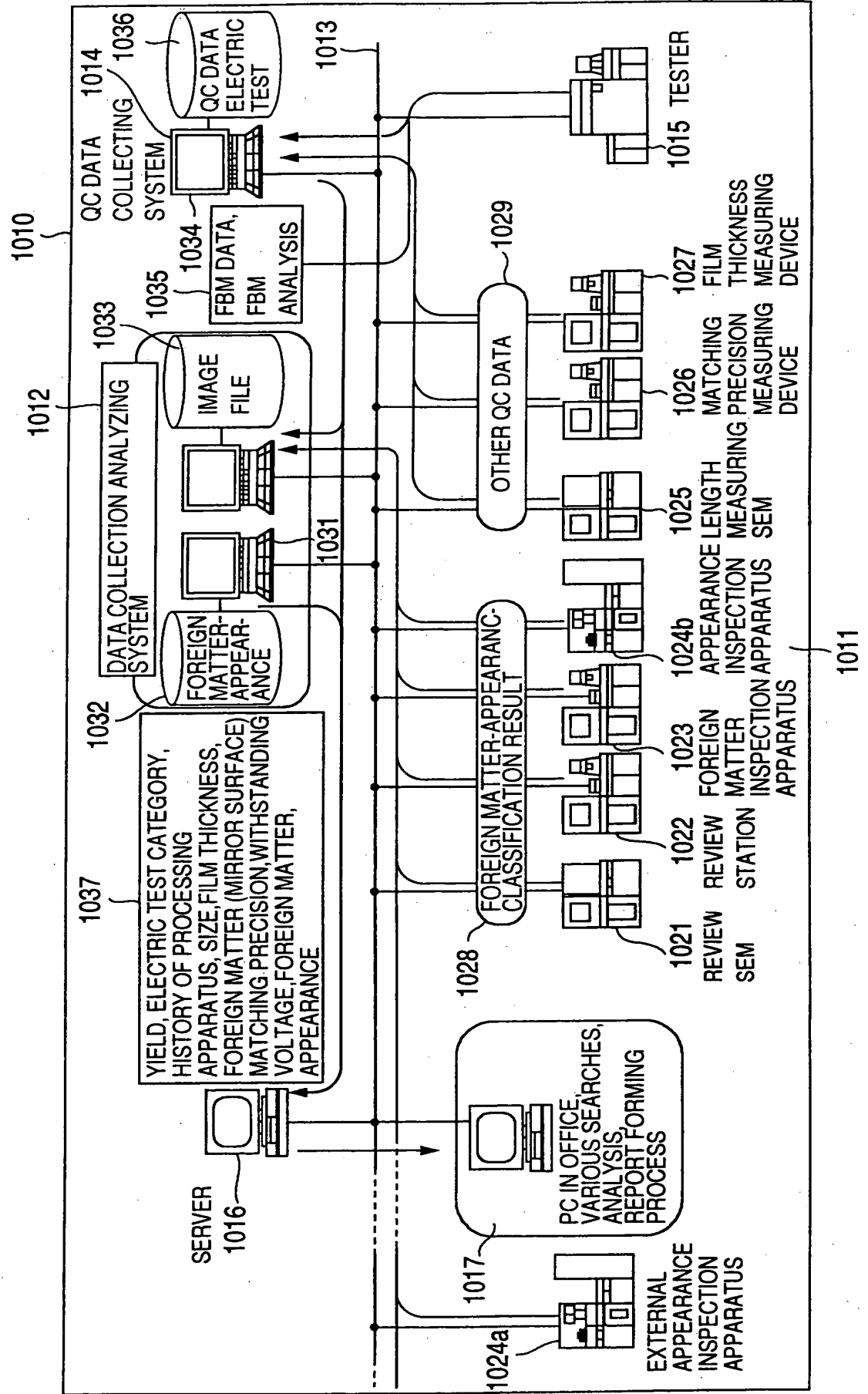


FIG.2

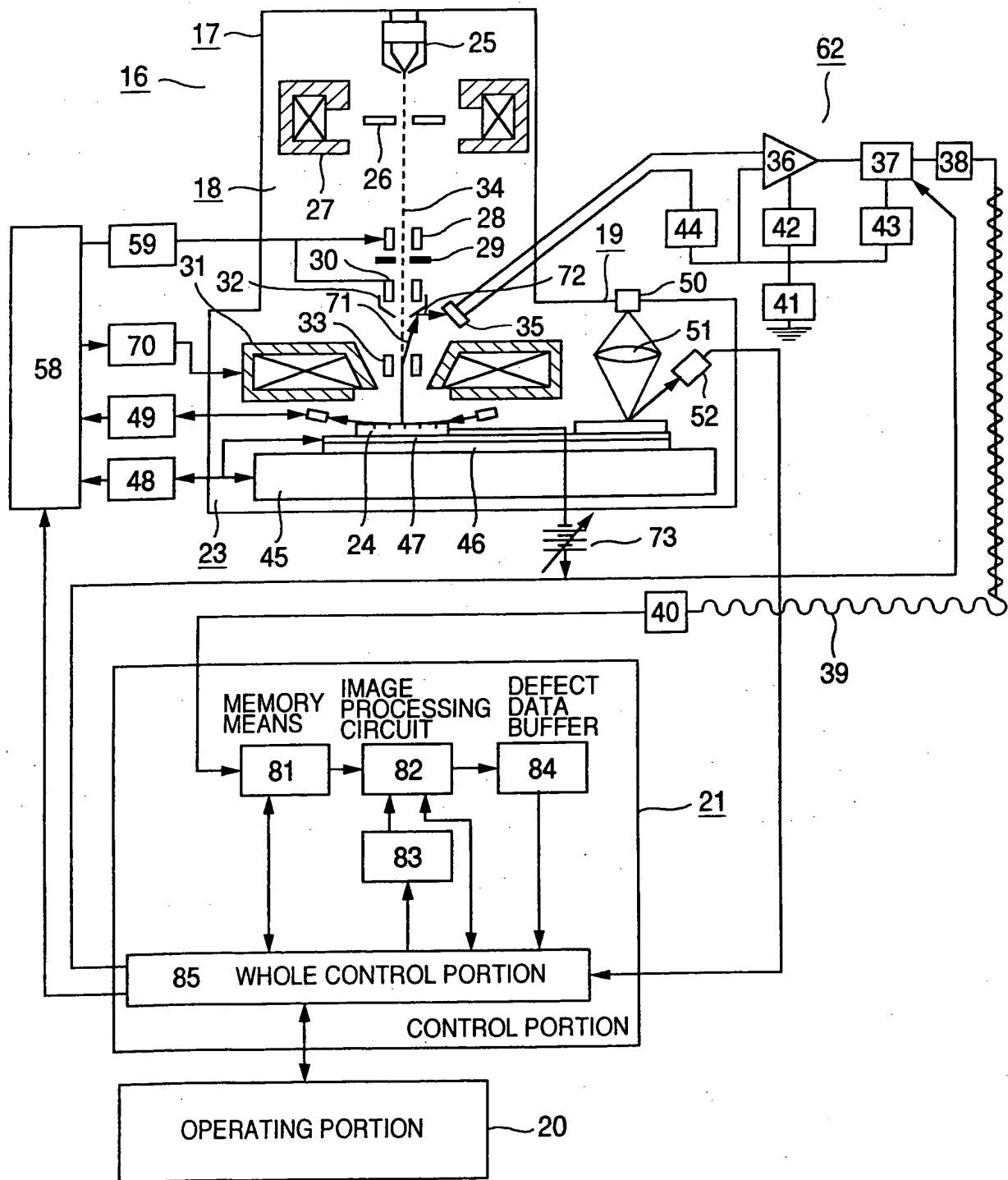


FIG.3

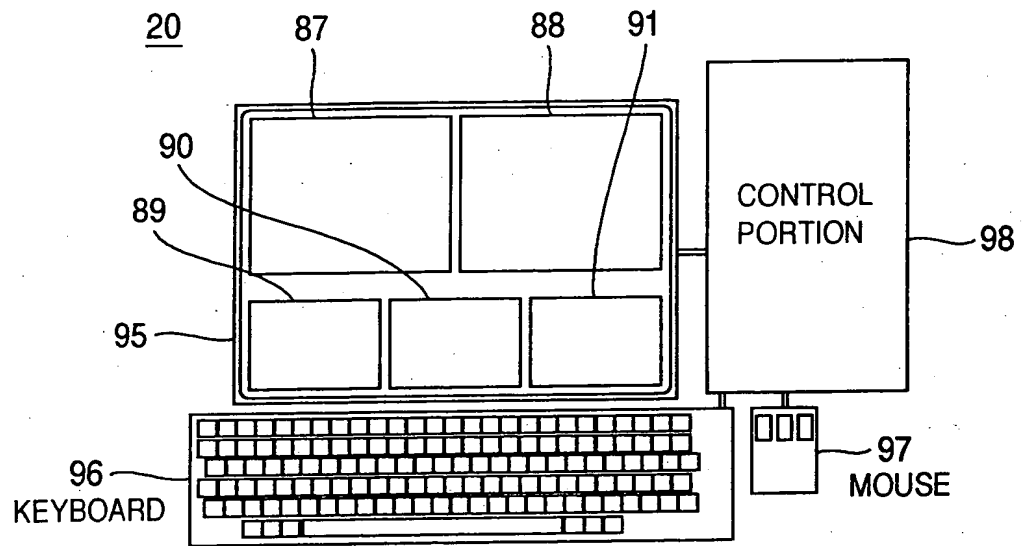


FIG.4

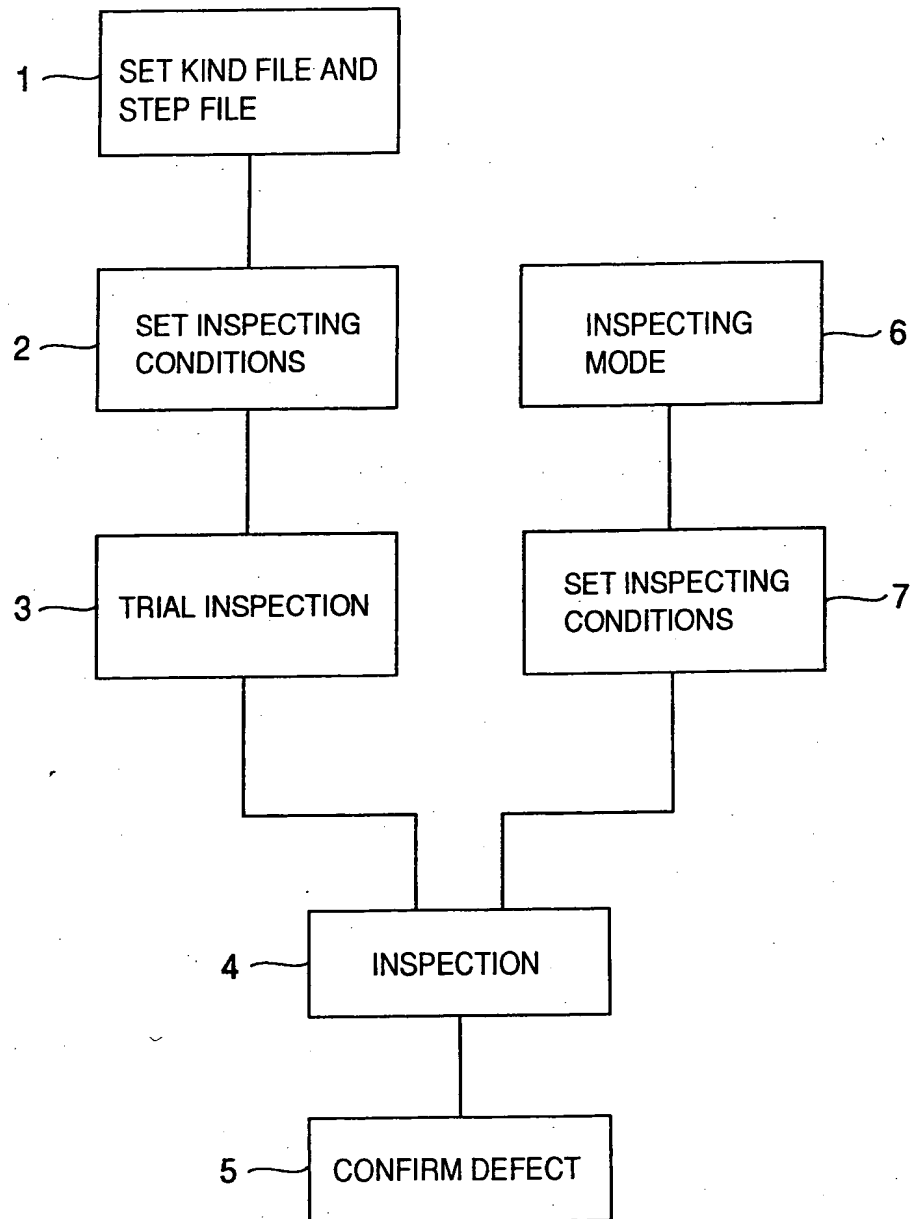


FIG. 4

FIG.5

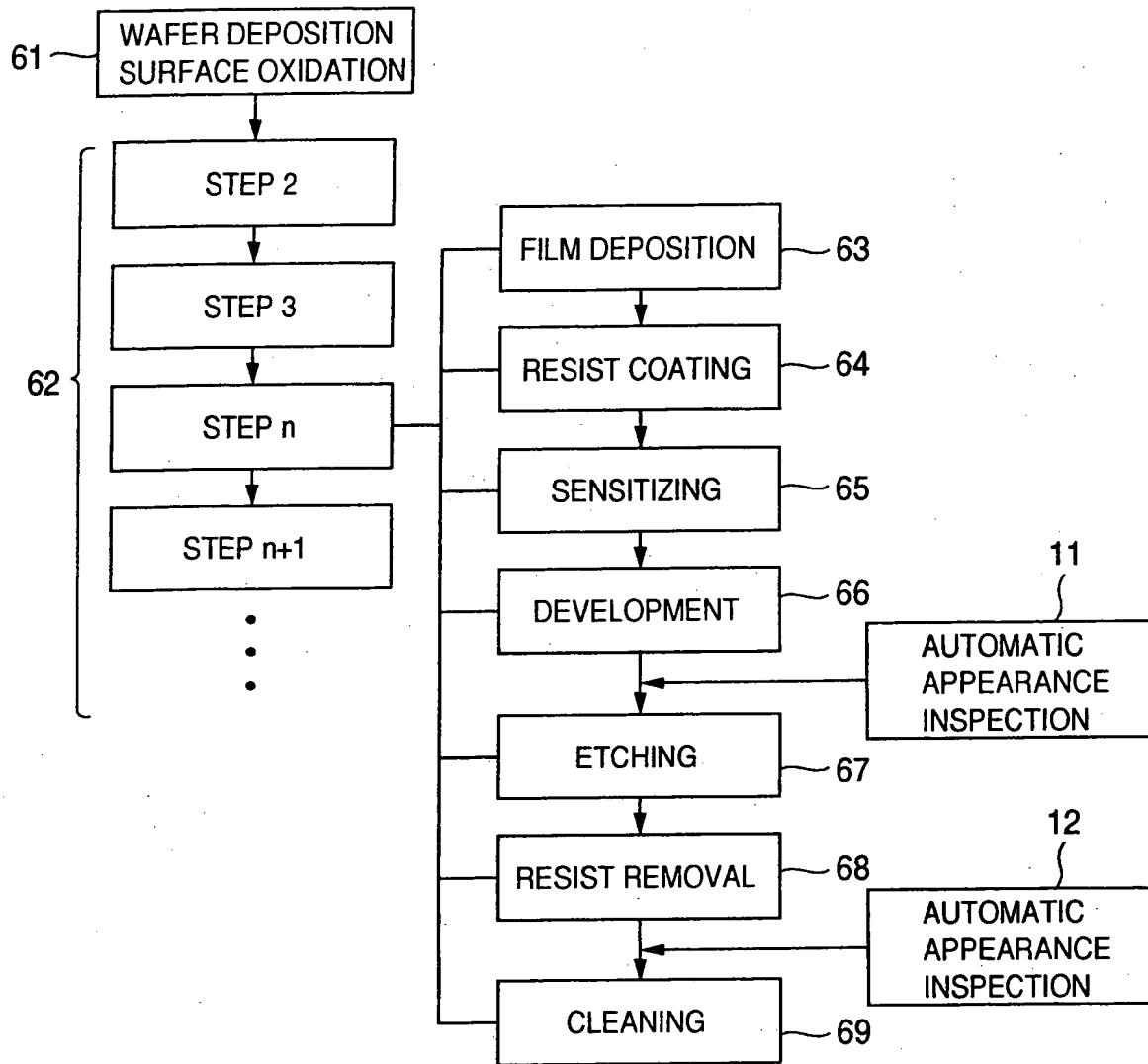
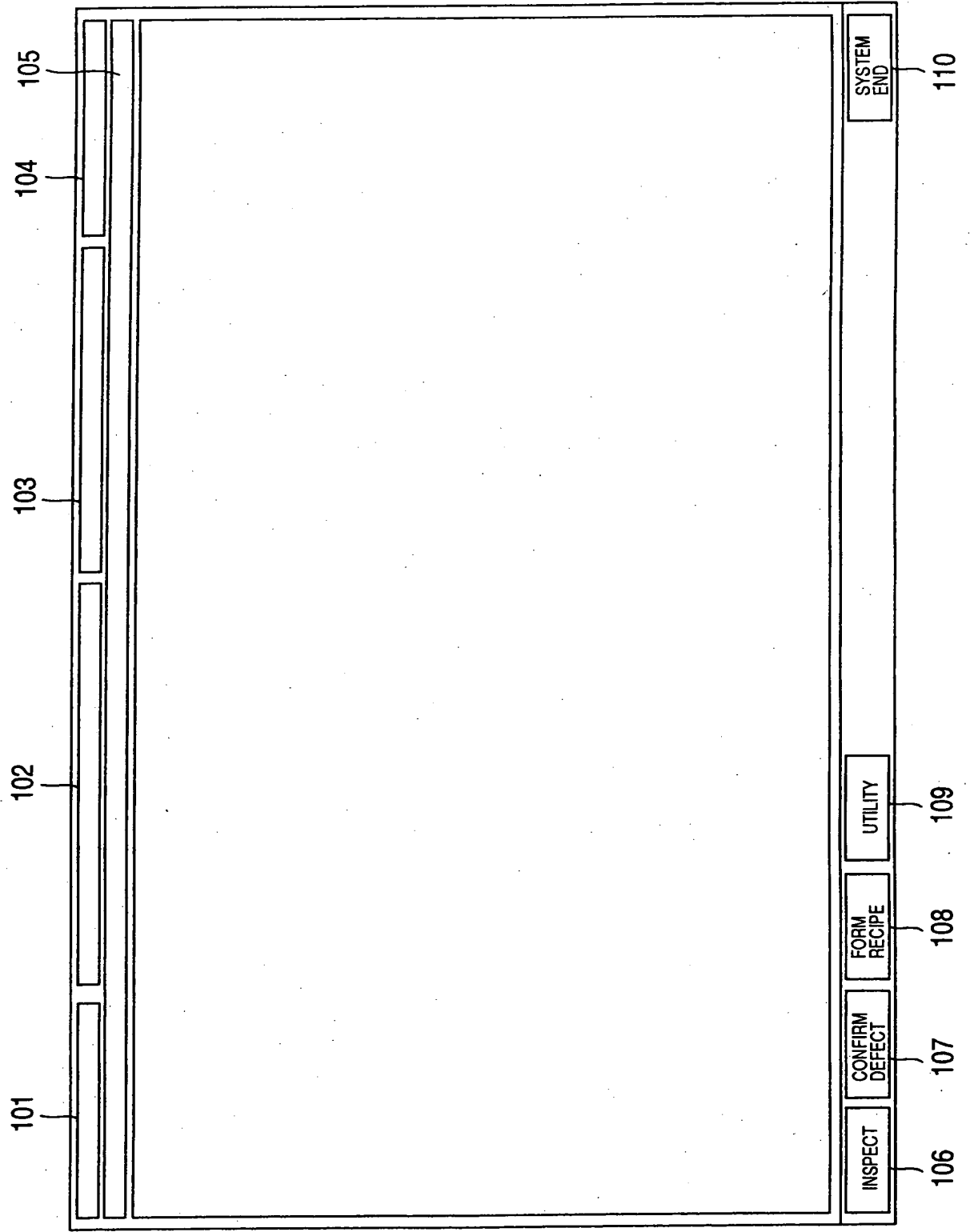


FIG. 6



1. The first step is to identify the problem. This involves understanding the current situation and the goals that need to be achieved.

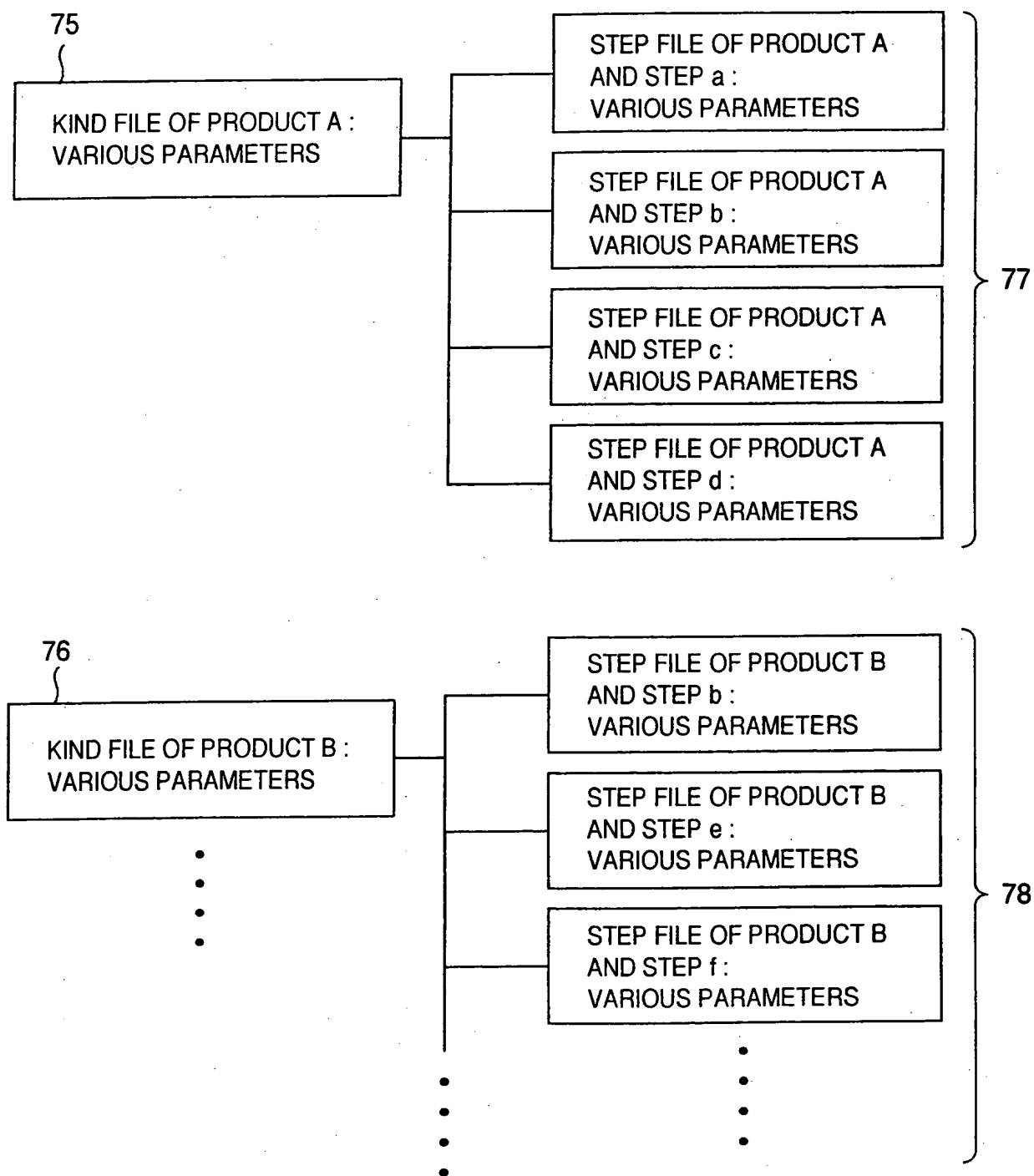


FIG.8

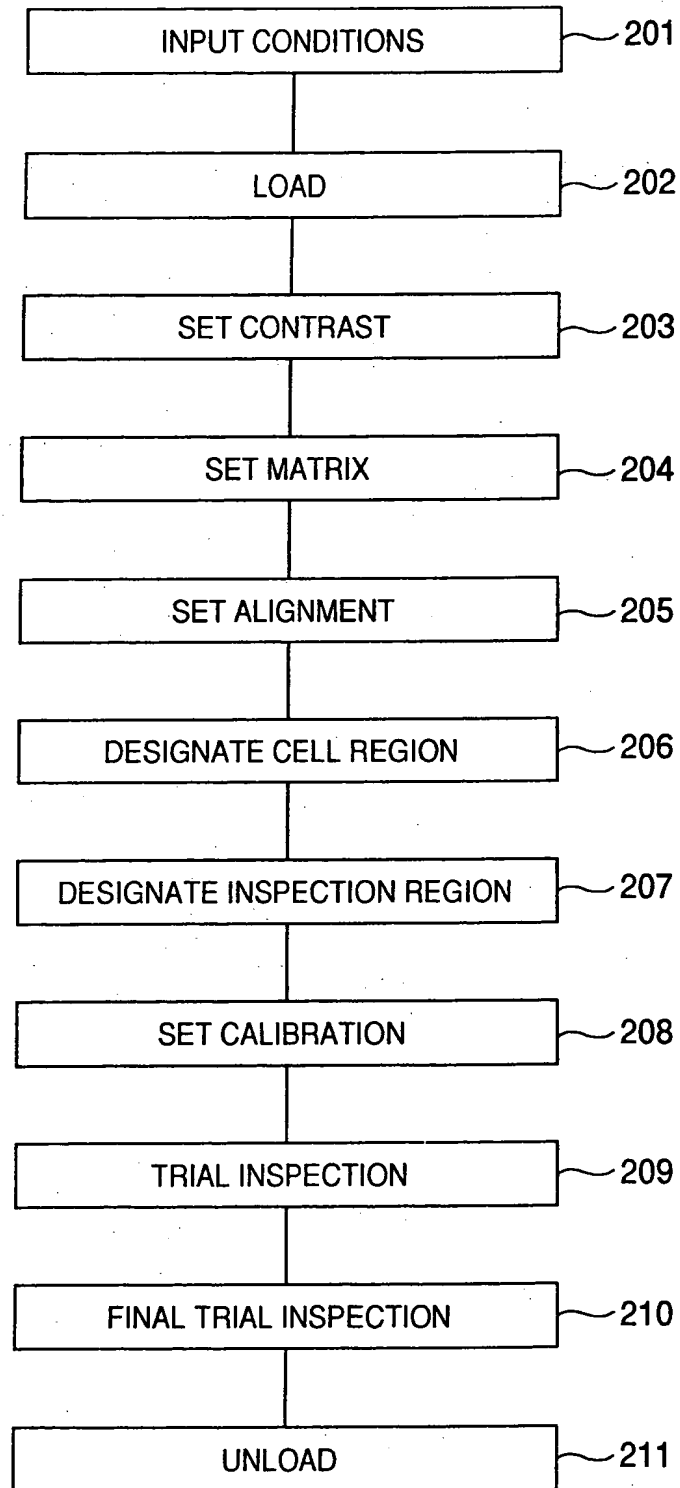


FIG. 9

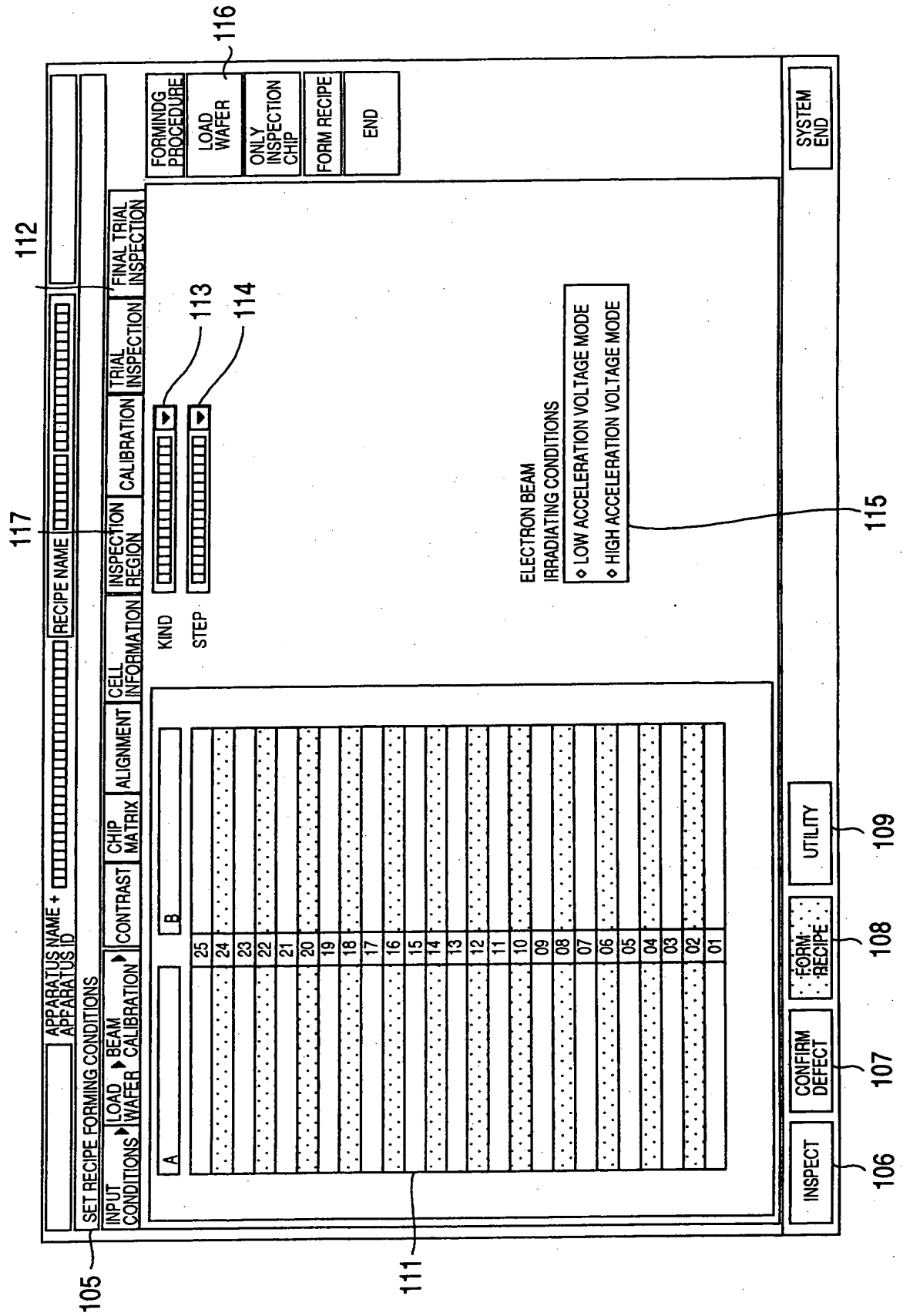


FIG. 10

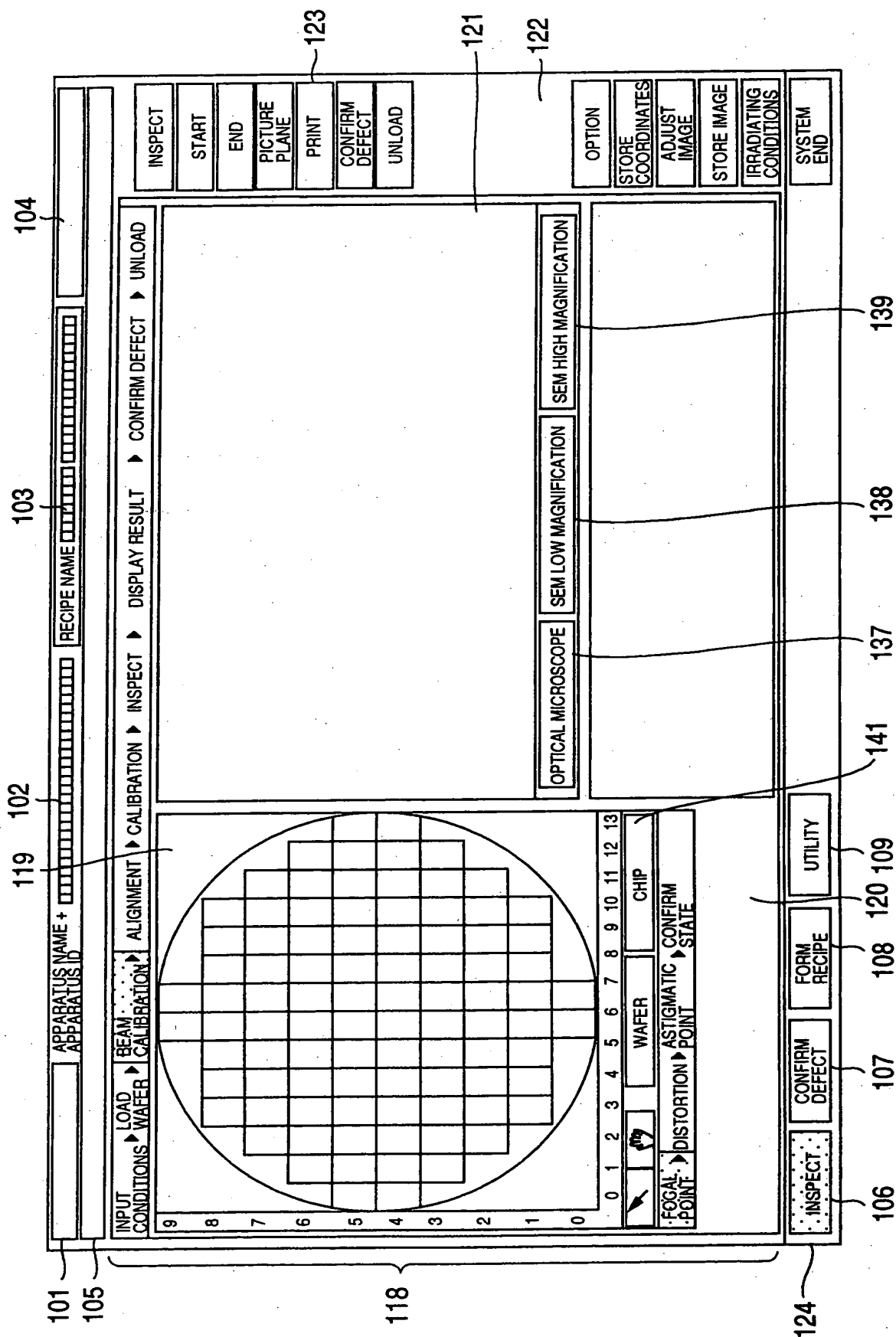


FIG.11

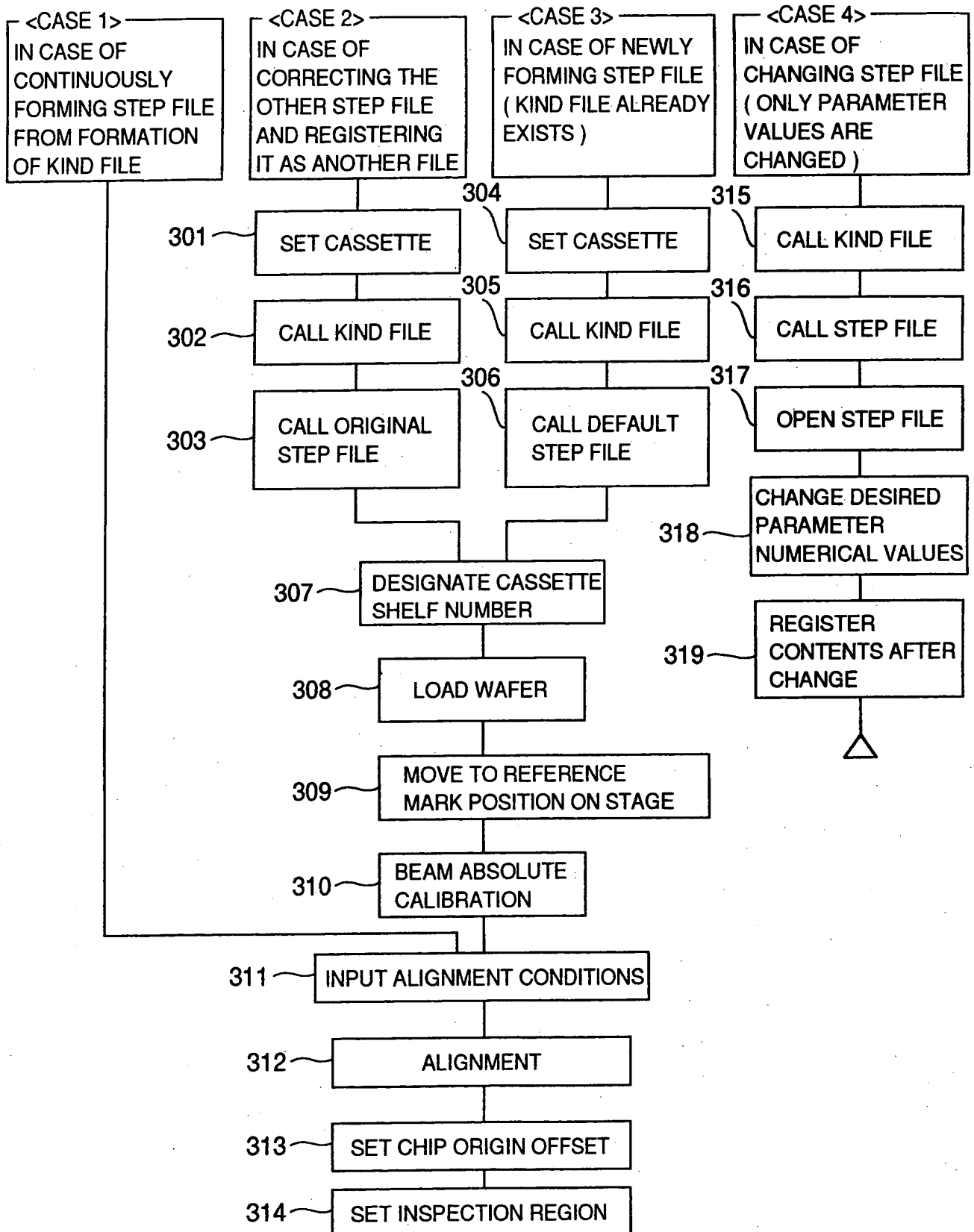


FIG.12

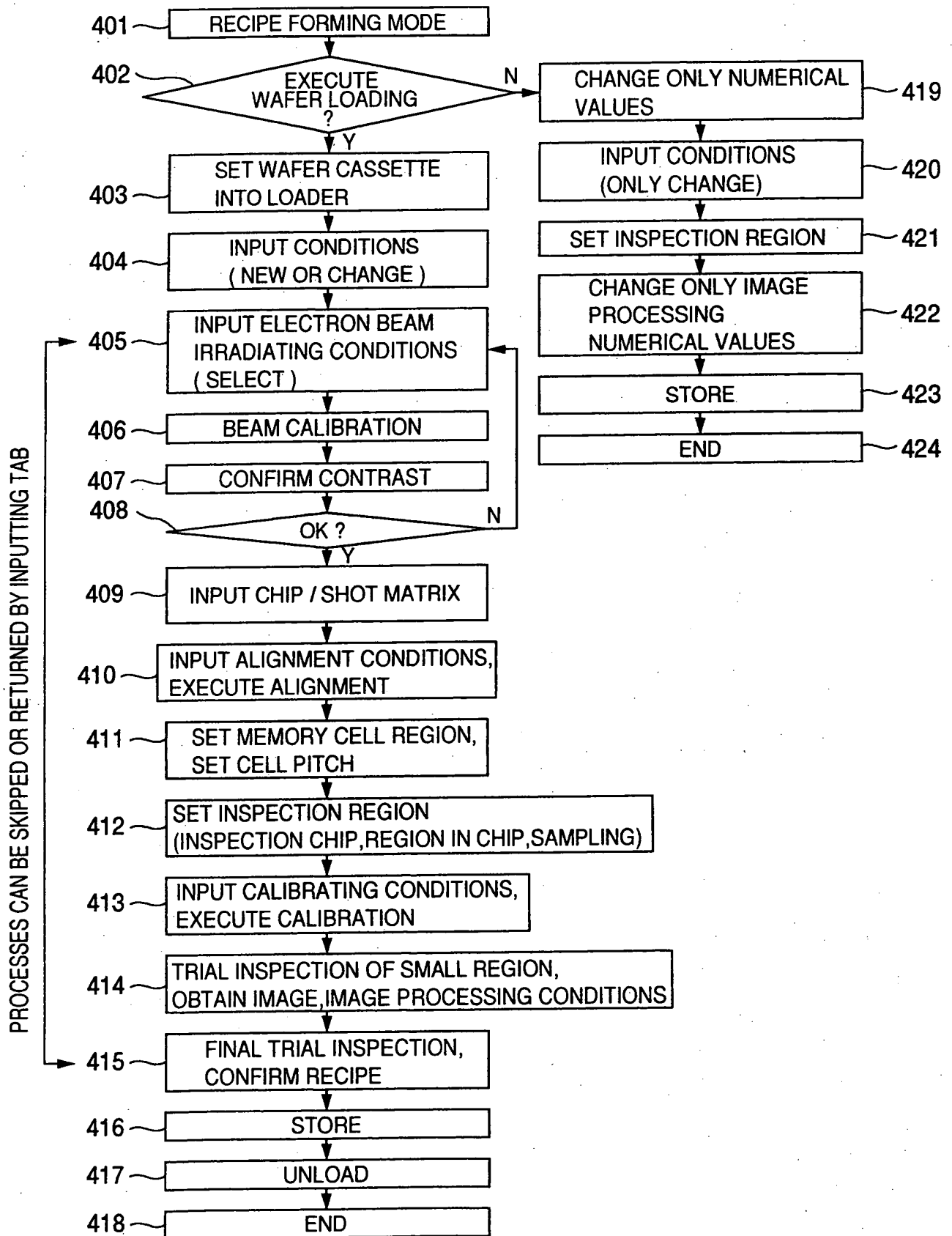


FIG. 13

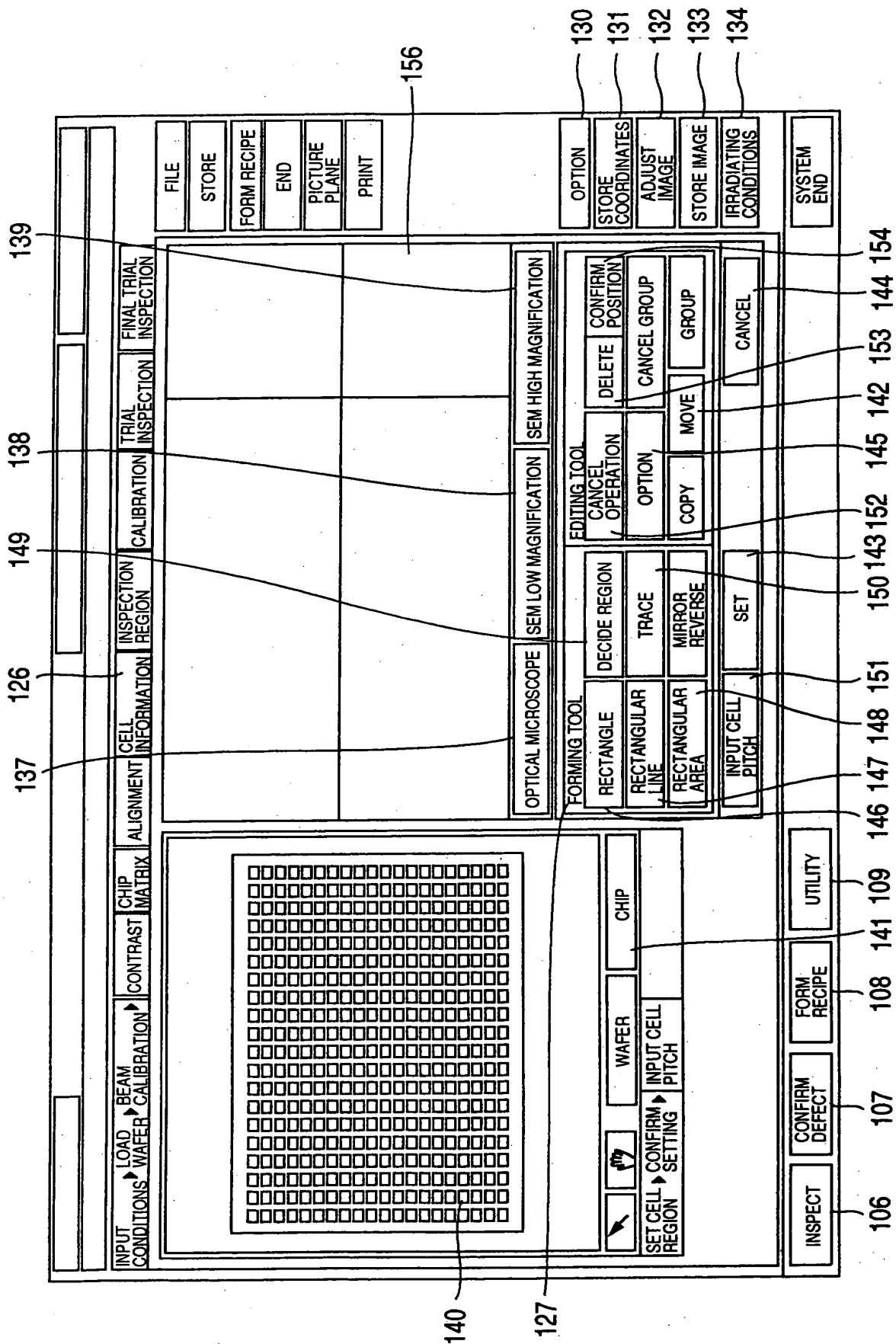


FIG.14

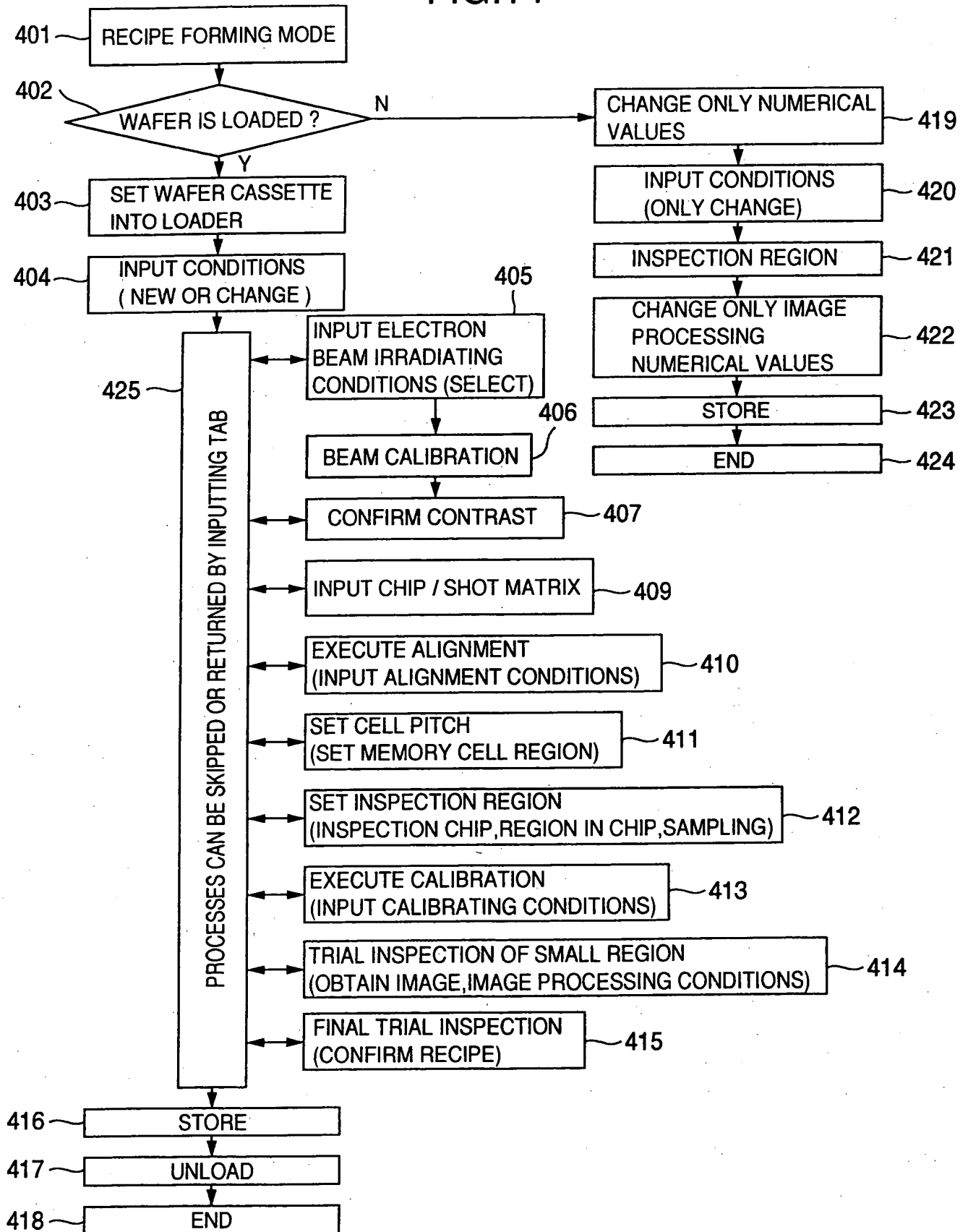


FIG.15

IRRADIATING CONDITIONS

ELECTRON BEAM IRRADIATING CONDITIONS

ACCELERATION VOLTAGE ▾ V

BEAM CURRENT ▾ nA

OBTAIN SIGNAL

THE NUMBER OF SIGNAL
ADDING TIMES ▾ ☐

PIXEL SIZE ▾ μm

SET CANCEL

92

93

94

FIG.16

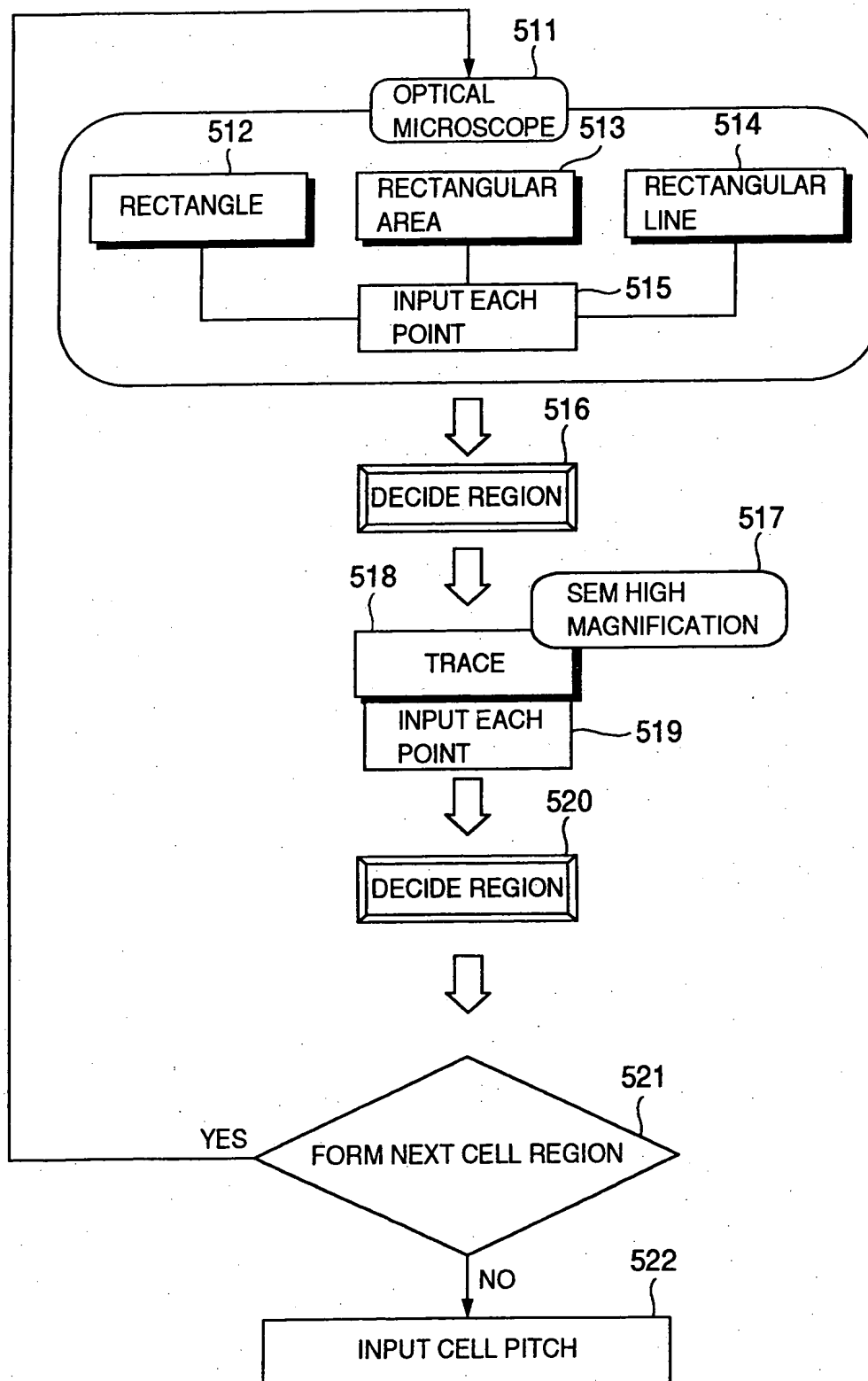


FIG.17

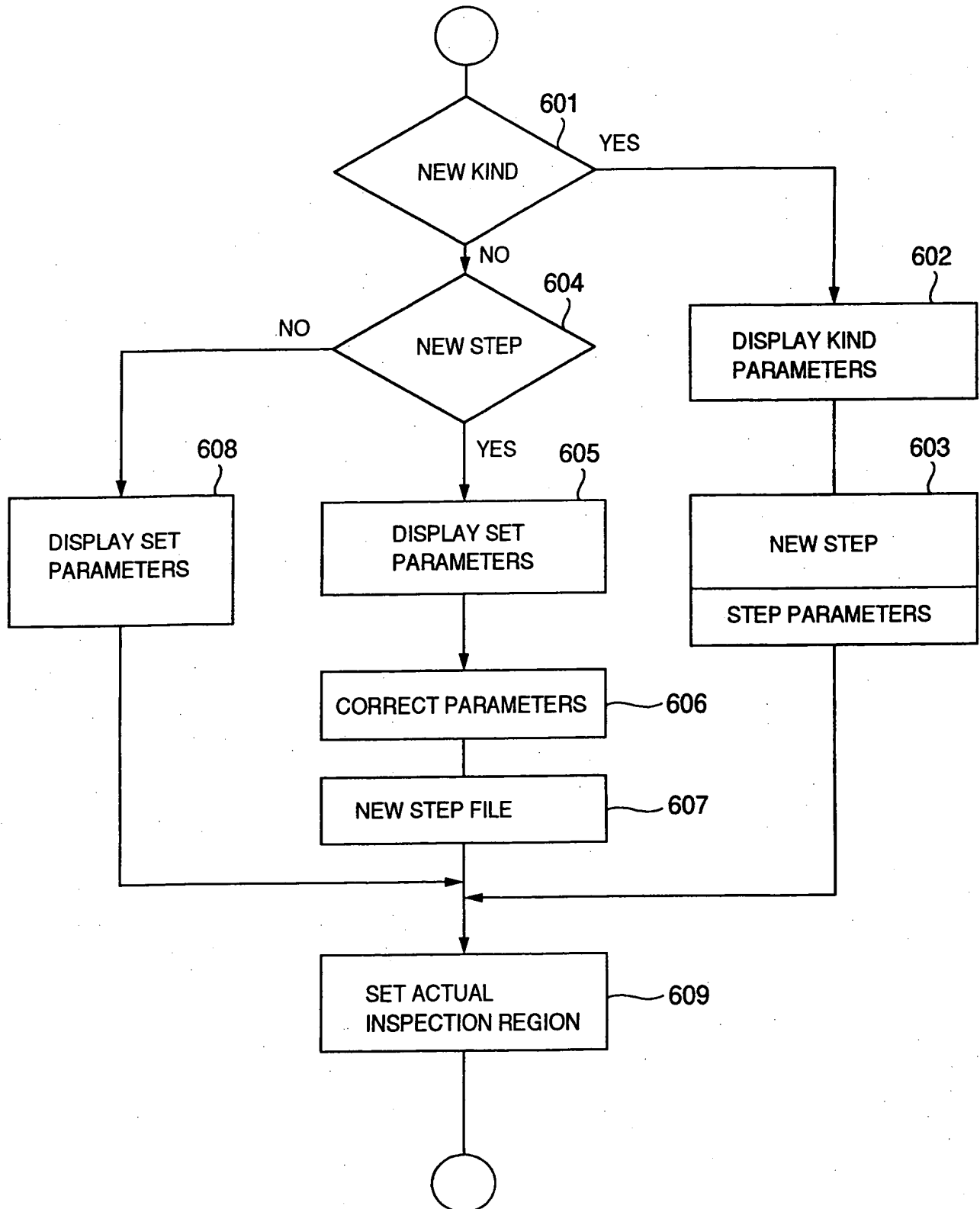


FIG.18

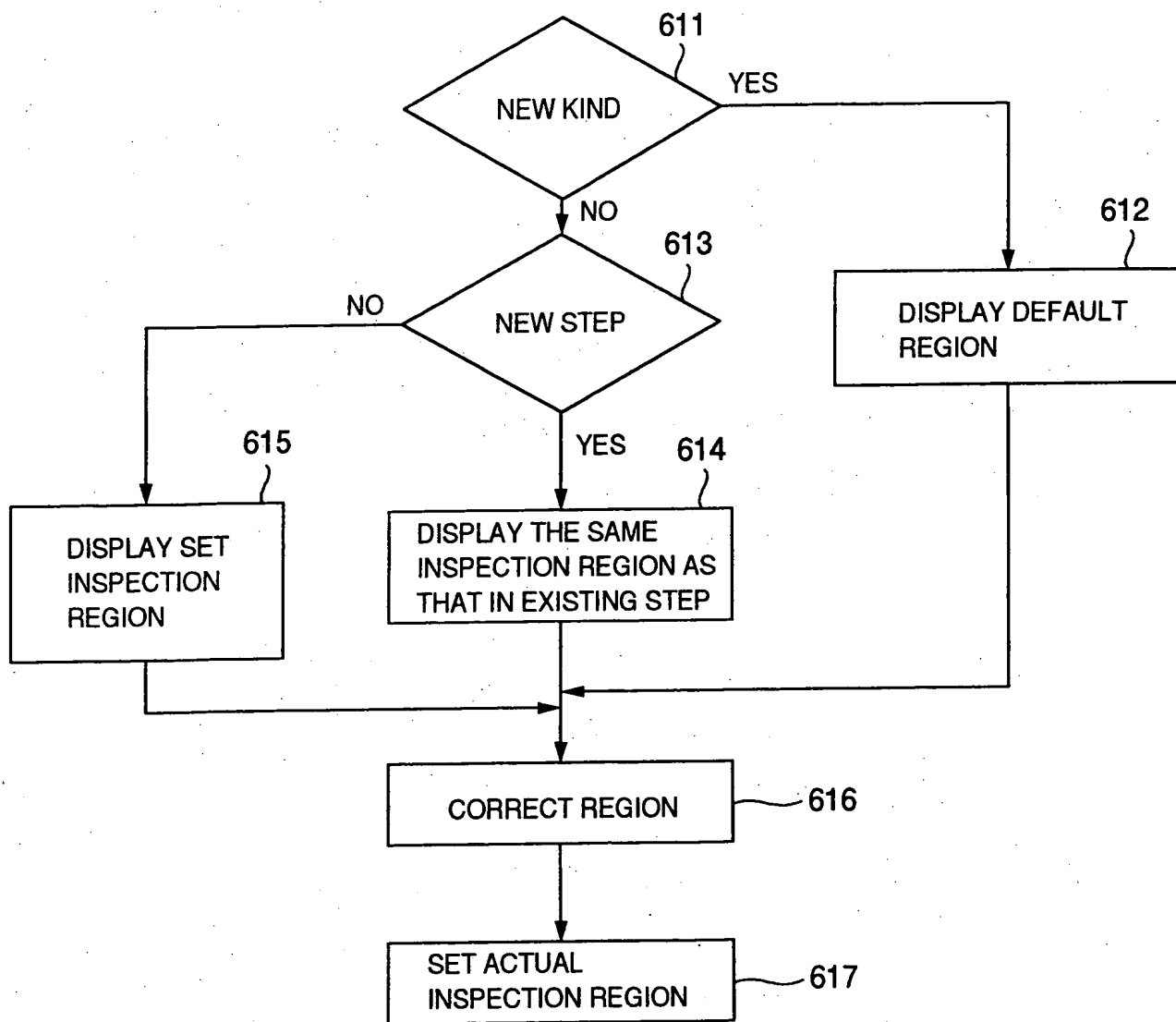


FIG.19

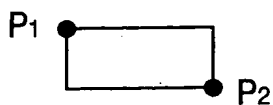


FIG. 20

FIG.20

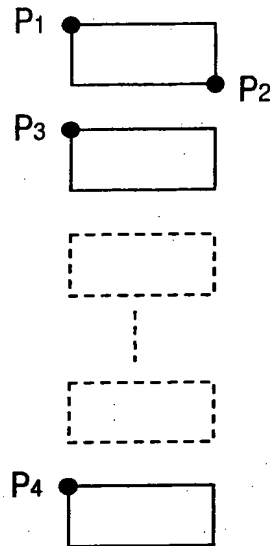


FIG.21

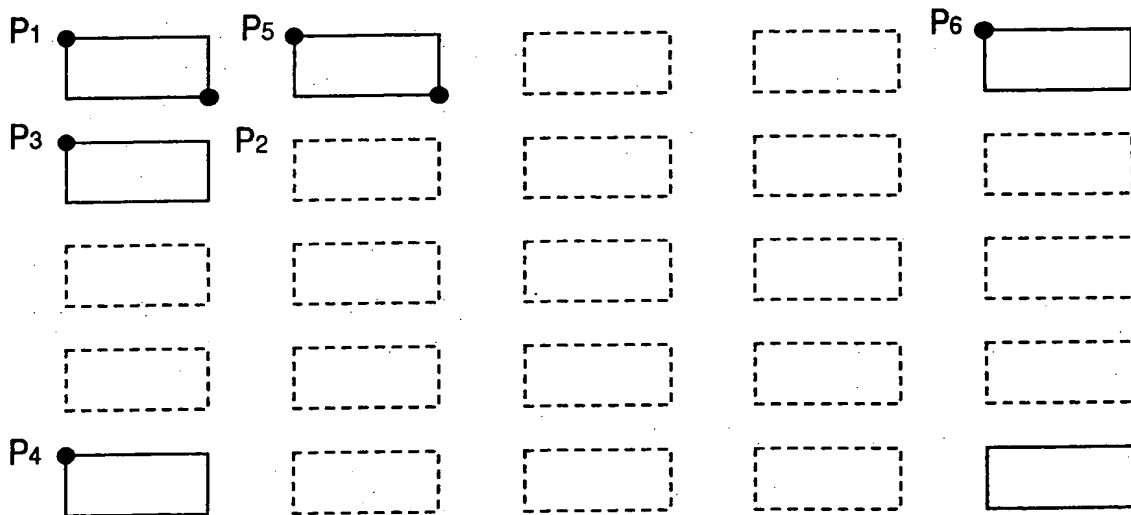


FIG.23

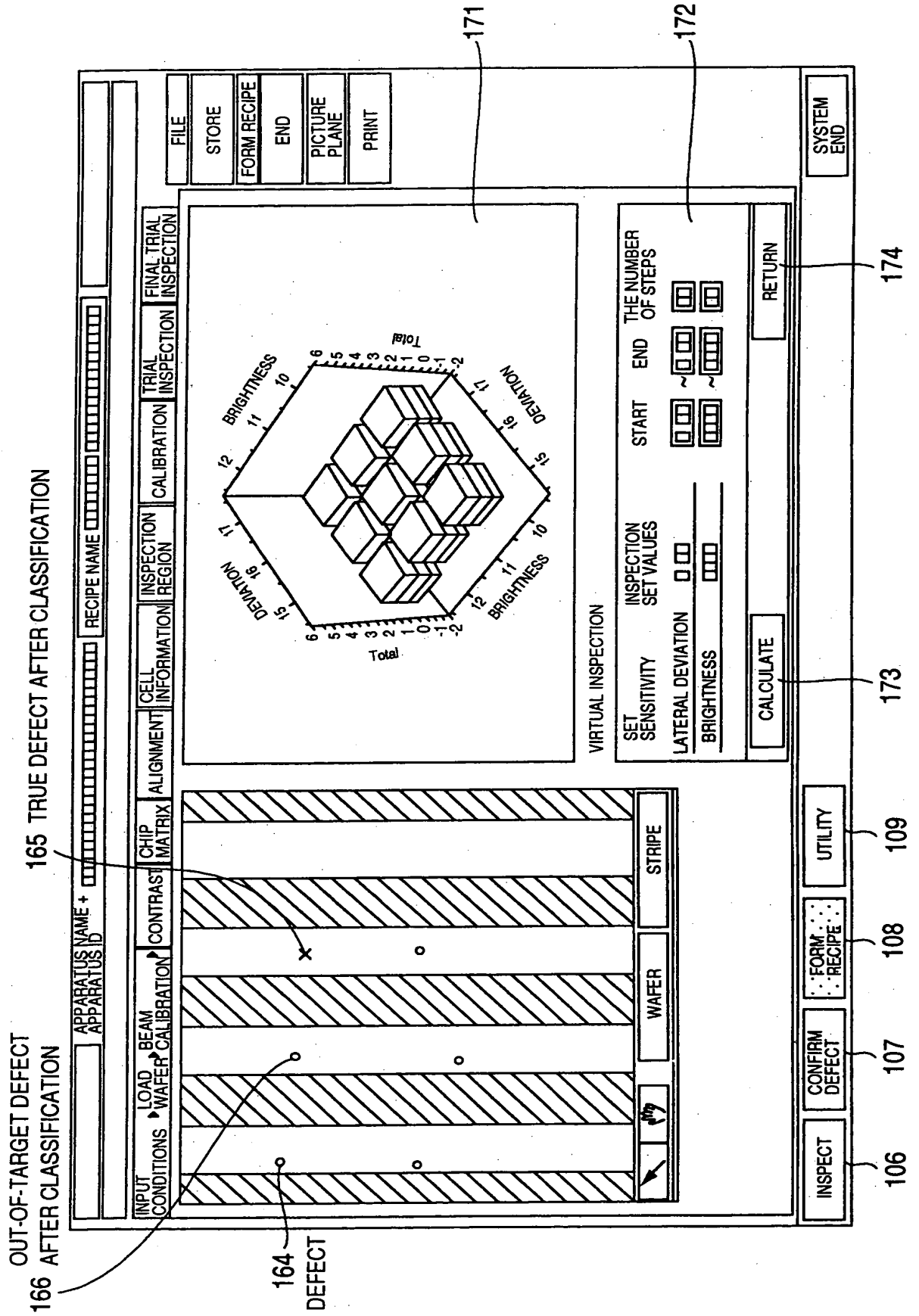
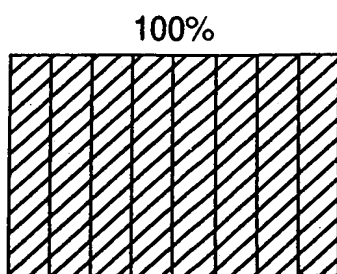
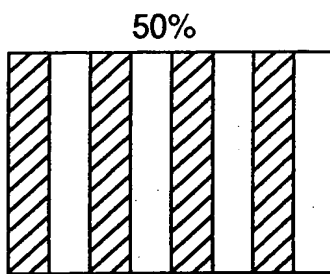


FIG.24A



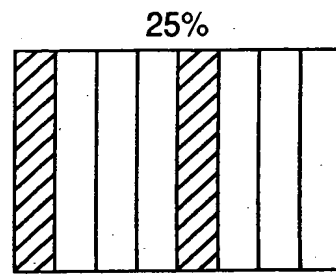
SCAN ALL
STRIPE

FIG.24B



SCAN EVERY
OTHER STRIPE

FIG.24C



SCAN EVERY
FOURTH STRIPE

FIG.25

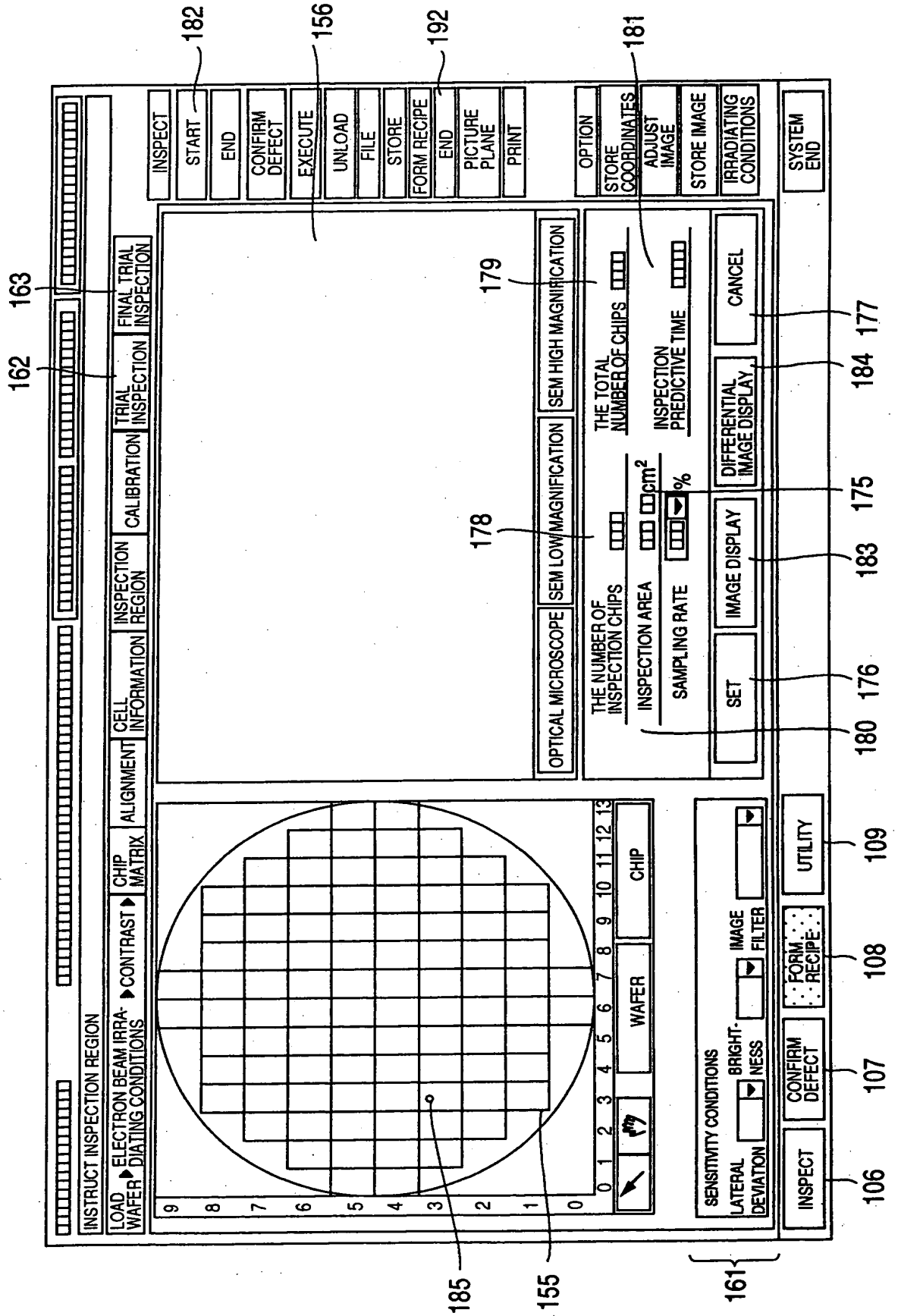


FIG.26

1998/11/06 15:00 IX_000_ID000V00.R03

R_TEST:KatolIX

INPUT CONDITIONS		LOAD		BEAM		CONTRAST		CHIP		ALIGNMENT		CELL INFORMATION		INSPECTION REGION		CALIBRATION		TRIAL INSPECTION		FINAL TRIAL INSPECTION	
18																					
17																					
16																					
15																					
14																					
13																					
12																					
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13																					
14																					
15																					
16																					
17																					
18																					

COORDINATES X IN CHIP 0.0 ~ 9999.9

COORDINATES Y IN CHIP 0.0 ~ 9999.9

CHIP MATRIX X 3 ~ 9

CHIP MATRIX Y 5 ~ 9

CLASSIFICATION CODE 0 ~ 999

WAFER

CHIP

DECIDE-DISPLAY AGAIN

EXCHANGE

INITIALIZE NUMERICAL VALUES

THE NUMBER OF DISPLAY DEFECTS

INSPECT

CONFIRM DEFECT

FORM RECIPE

UTILITY

INSPECT

START

END

CONFIRM DEFECT

EXECUTE

UNLOAD

FILE

STORE

FORM RECIPE

END

PICTURE PLANE

PRINT

OPTION

STORE COORDINATES

ADJUST IMAGE

STORE IMAGE

IRRADIATING CONDITIONS

SYSTEM END

191

187

186

188

156

192

130

131

132

133

134

FIG.27

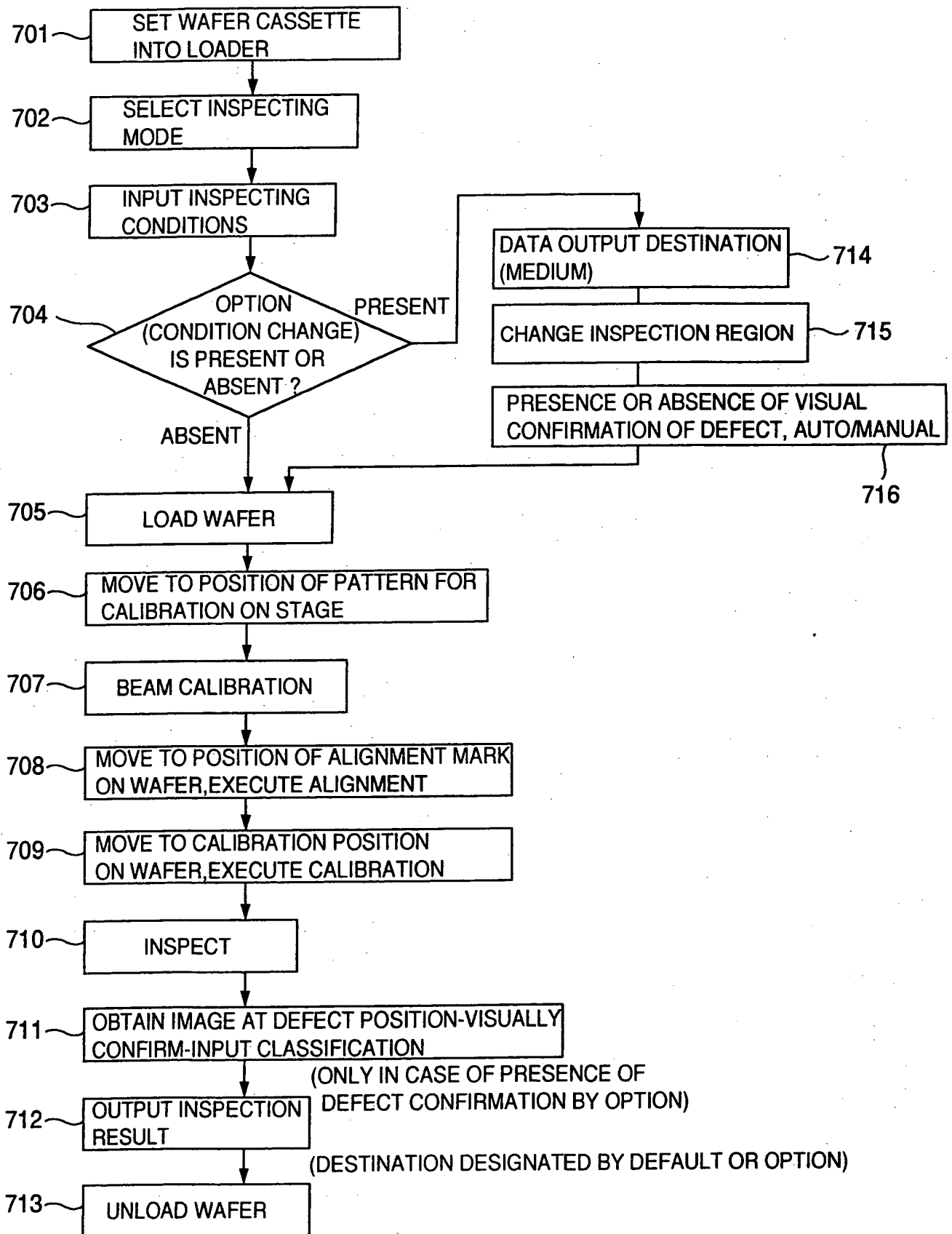


FIG. 28

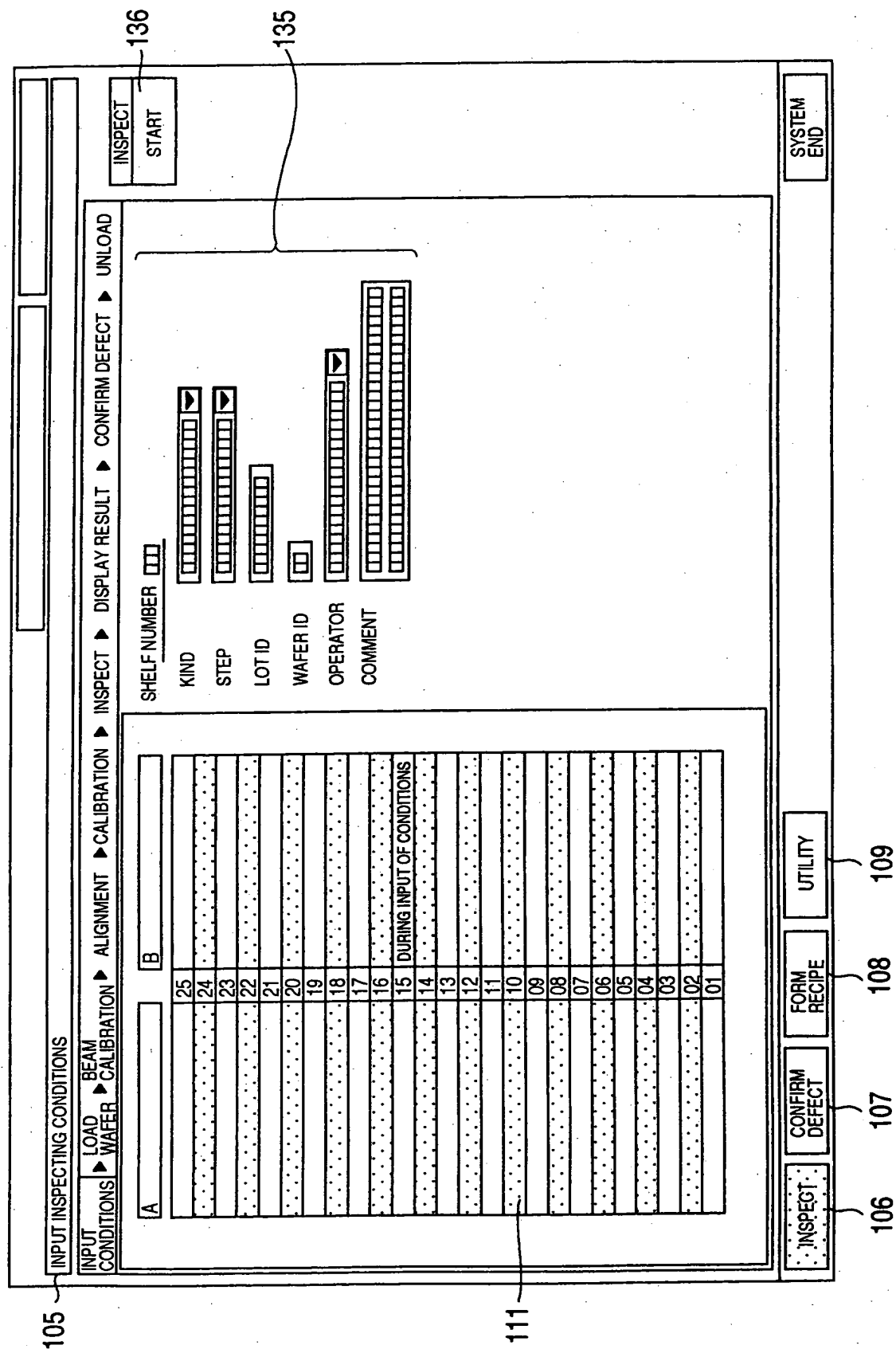


FIG.29

105

INPUT CONDITIONS

LOAD ▶ BEAM CALIBRATION ▶ ALIGNMENT ▶ CALIBRATION ▶ INSPECT ▶

DISPLAY RESULT ▶ CONFIRM DEFECT ▶ UNLOAD

INSPECT START

END

PICTURE PLANE

PRINT

909

PROGRESS OF INSPECTION

THE NUMBER OF DEFECTS 216

THE NUMBER OF DEFECTIVE CHIPS 54

DEFECT DENSITY 3.021

FAILURE CHIP RATE 100.00 %

INSPECTION TIME

INSPECTION END TIME

910

SHELF NUMBER B15

KIND HQJ1

STEP Holipro

WAFER ID 22 LOT ID 11

OPERATOR BORIOKA.HIROSIII

COMMENT print

106

INSPECT

CONFIRM DEFECT

UTILITY

FORM RECIPE

107

108

109

FIG. 30

FIG.31

APPARATUS NAME + APPARATUS ID

RECIPE NAME

SET INSPECTING CONDITIONS

INPUT CONDITIONS

LOAD

BEAM

WAFER

CALIBRATION

ALIGNMENT

CALIBRATION

INSPECT

DISPLAY RESULT

CONFIRM DEFECT

UNLOAD

CHANGE RESULT OUTPUT DESTINATION

SHELF NUMBER

H/D

F/D

MO

AS

PRINTER

STANDARD

OPTION

SHELF NUMBER

KIND

STEP

LOT ID

WAFER ID

OPERATOR NAME

COMMENT

OPTION

CHANGE RESULT OUTPUT DESTINATION

CHANGE INSPECTION REGION

CHANGE RESULT OUTPUT DESTINATION

CHANGE OPERATING CONDITIONS

INSPECT

START

END

PICTURE PLANE

PRINT

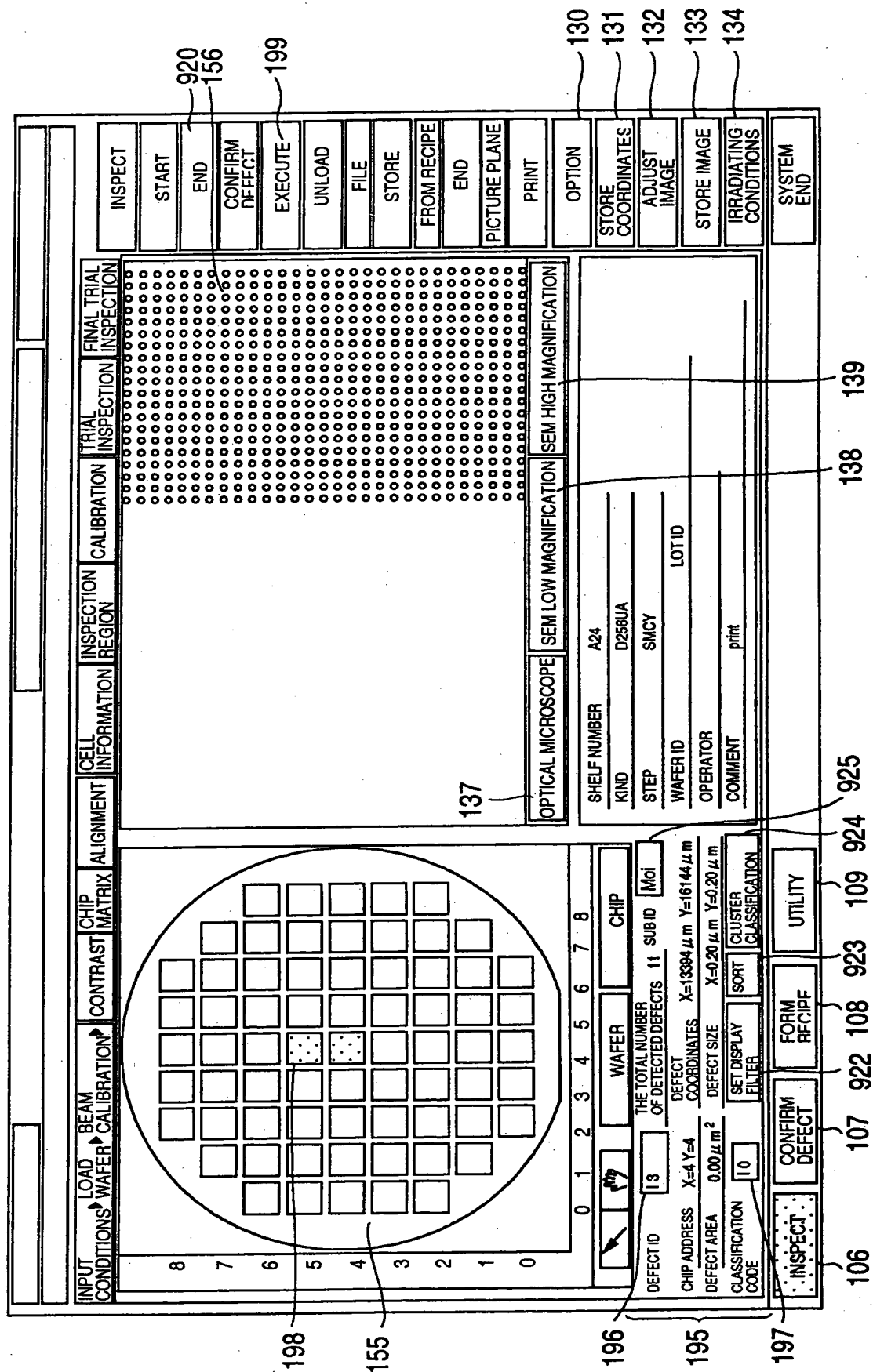
CONFIRM DEFECT

FORM RECIPE

UTILITY

SYSTEM END

FIG.32



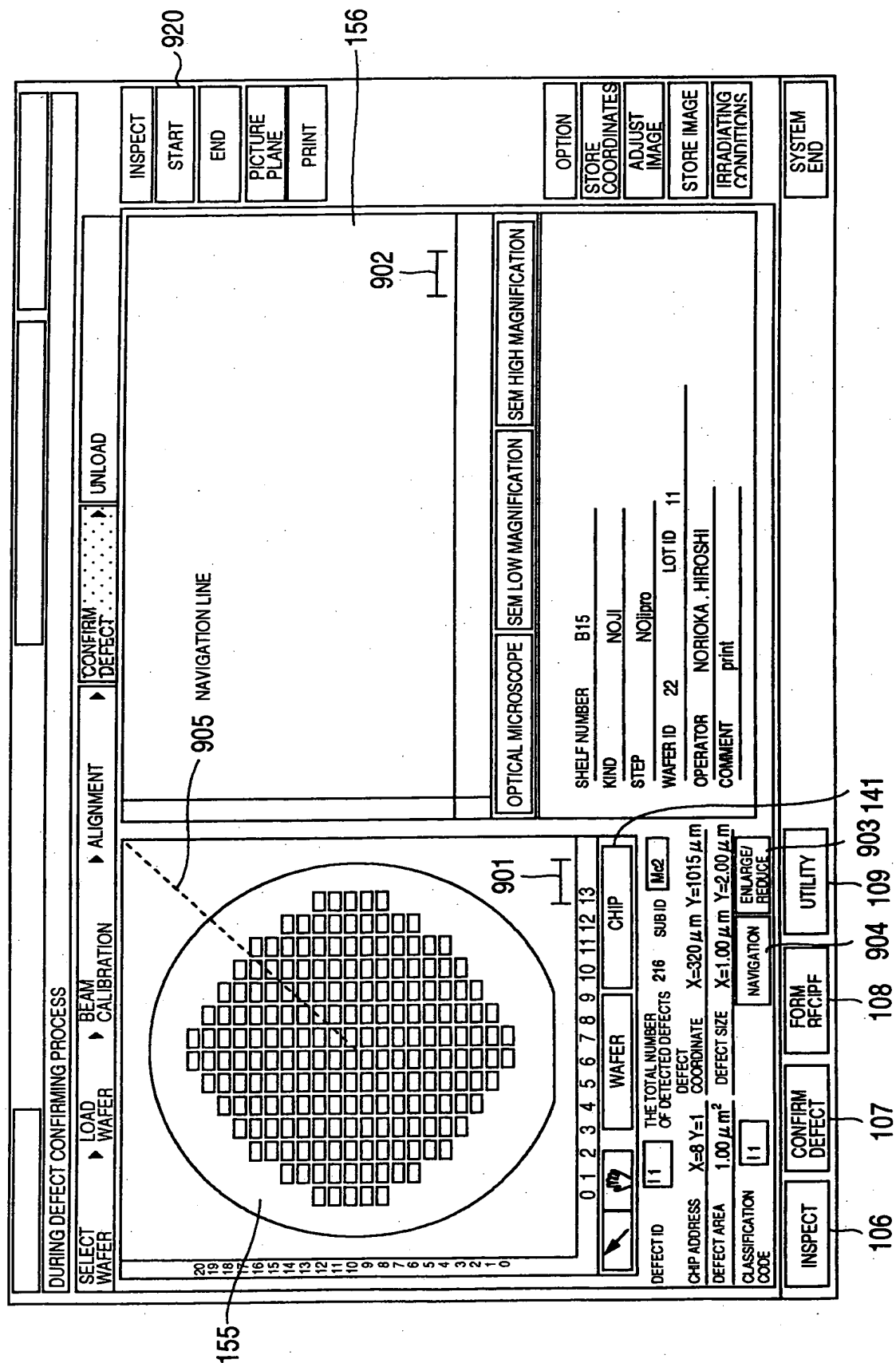


FIG.34

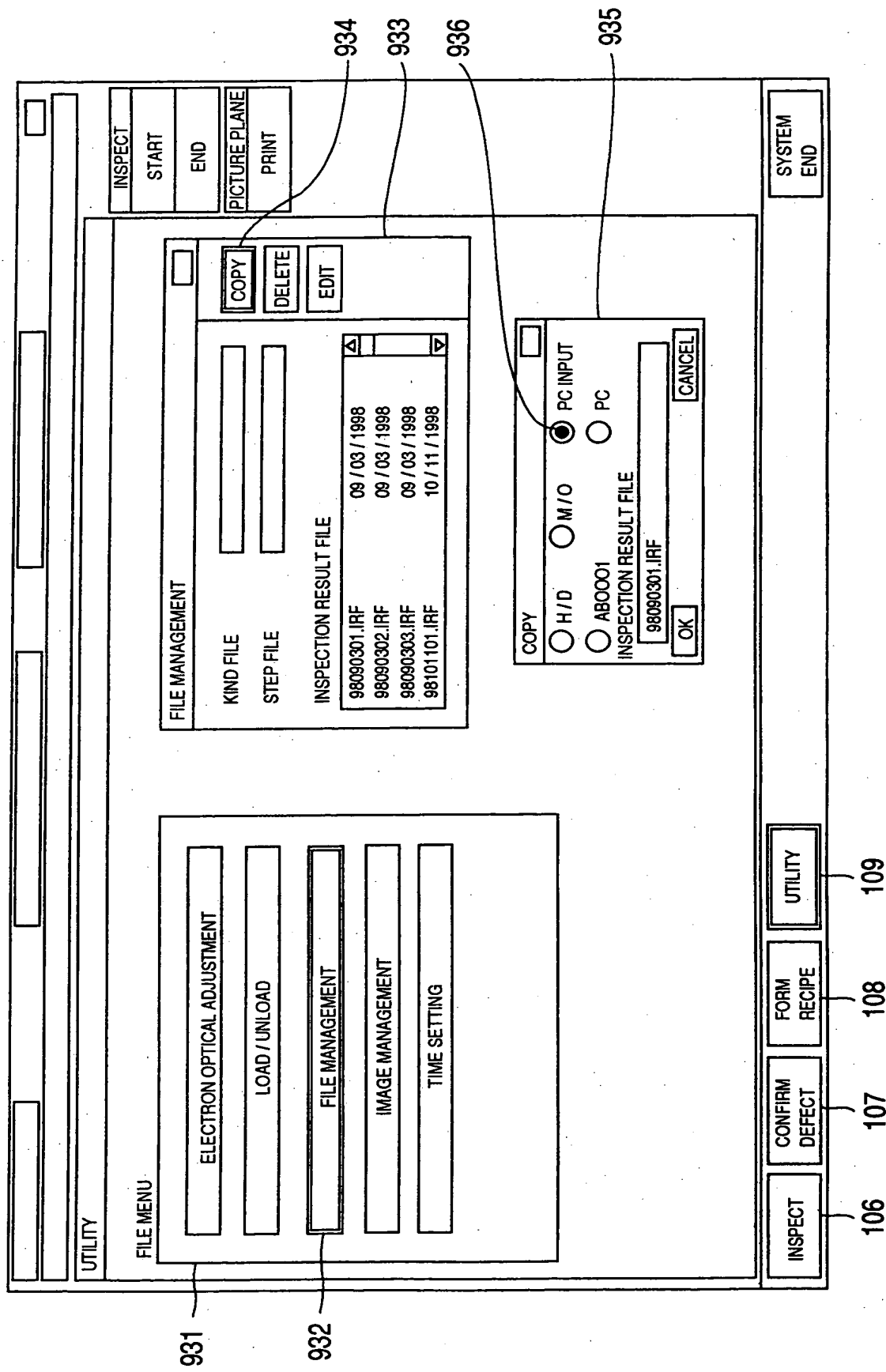


FIG.35

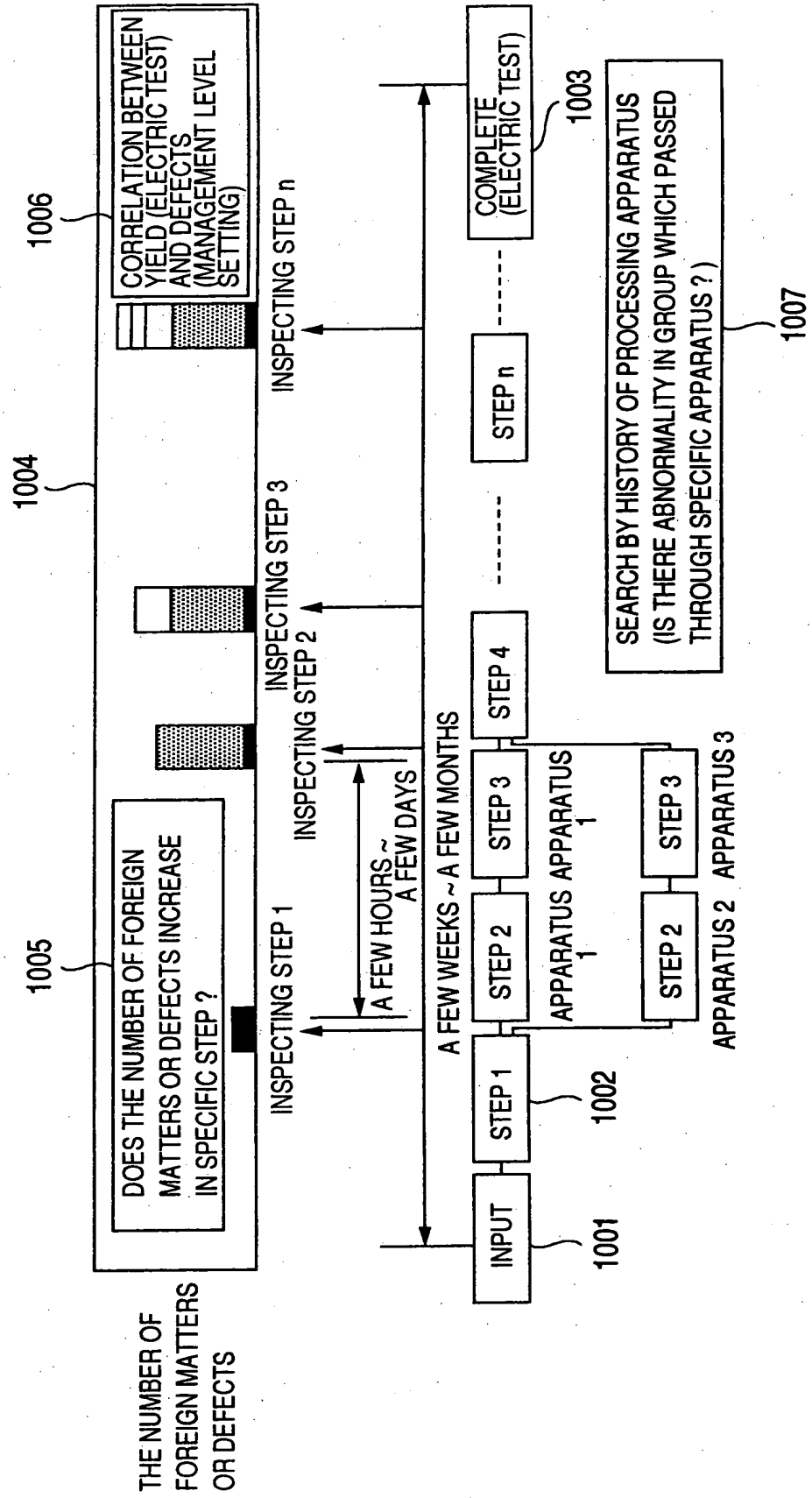


FIG.36

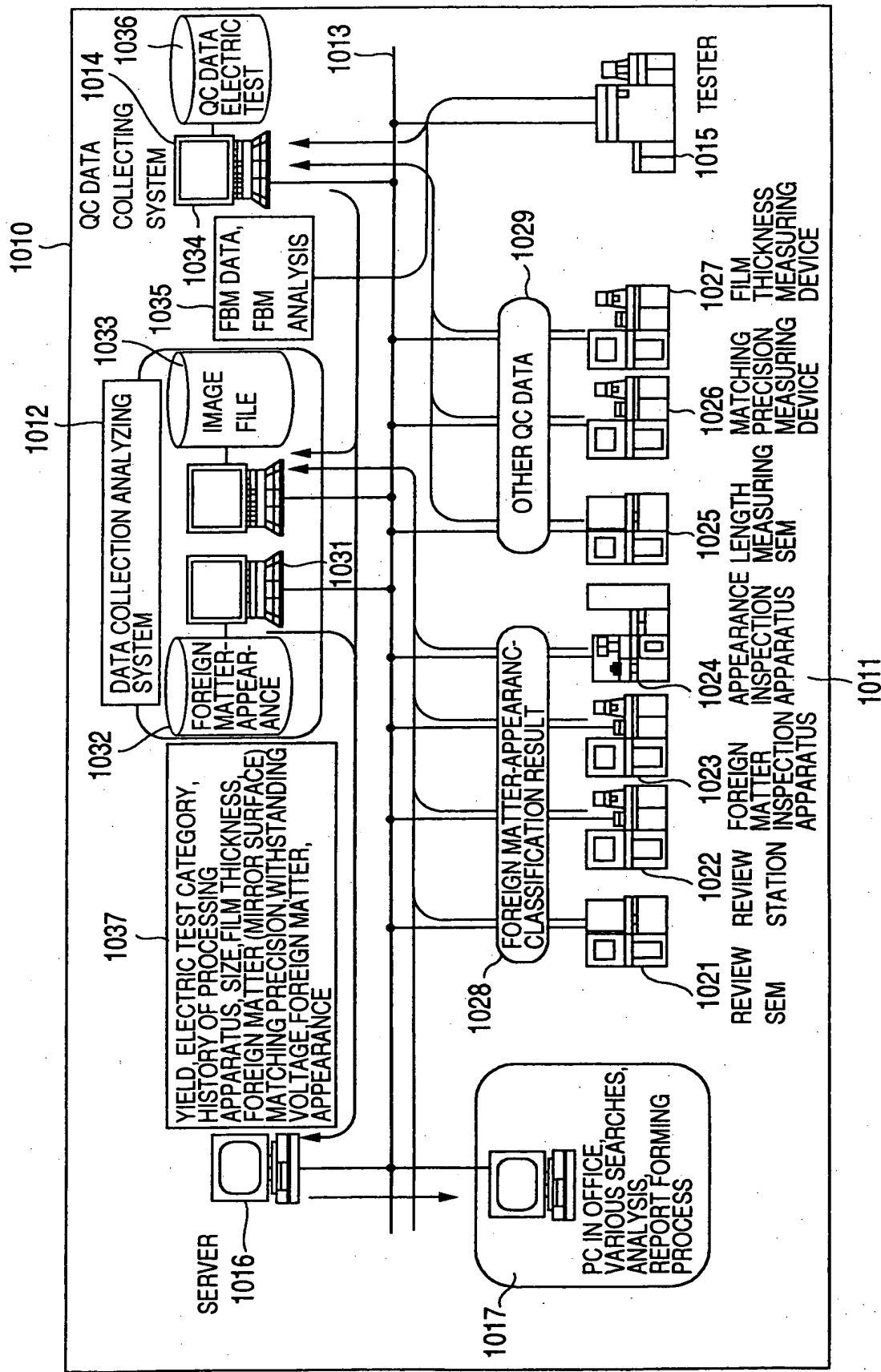


FIG. 37

